

# Intesis DALI to BACnet gateway Installation Guide

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## INBACDAL1280200 DALI to BACnet gateway

Order Code: INBACDAL1280200
Installation Sheet rev.1.1
HMS Industrial Networks S.L.U ©

## **Owner's Record**

The serial number is located at the rear of the gateway. Record this information in the space provided below. R efer to it whenever you contact your gateway dealer or support team regarding this product. **Serial No.** 

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#### **SAFETY INSTRUCTIONS**



Follow carefully these safety and installation instructions. Improper work may lead to serious harm ful for your health and may also damage seriously the Intesis gateway and/or any other equipment connected to it.

The Intesis gateway must be installed by an accredited electrician or similar technical personnel, following all the safety instructions given here and in accordance always with the country legislation for installation of electric equipment.

The Intesis gateway cannot be installed outdoors or exposed to direct solar radiation, water, high relative humidity, or dust.

The Intesis gateway must only be installed in a restricted access location.

In case of wall mount, fix firmly the Intesis device on a not vibrating surface following the instructions next.

In the case of the DIN rail, mount fix the Intesis device properly to the DIN rail following the instructions below.

Mounting on DIN rail inside a metallic cabinet properly connected to the earth is recommended.

Disconnect always a power of any wires before manipulating and connecting them to the Intesis device.

A power supply with an NEC Class 2 or Limited Power Source (LPS) and SELV rated is to be used.

Respect always the expected polarity of power and communication cables when connecting them to the Intesis device.

Supply always a correct voltage to power the Intesis gateway, see details of voltage range admitted by the device in the technical characteristics below.

**CAUTION:** Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries according to the instructions. Battery replacement shall be done by an authorized installer.

**CAUTION:** The device is to be connected only to networks without routing to the outside plant, all communication ports are considered for indoor only and can be connected to SELV circuits only.

This device was designed for installation in an enclosure. To avoid electrostatic discharge to the unit in environments with static levels above 4 kV, precautions should be taken when the device is mounted outside an enclosure. When working in an enclosure (ex. making adjustments, setting switches, etc.) typical anti-static precautions should be observed before touching the unit.

Safety instructions in other languages can be found at: <a href="https://intesis.com/docs/manuals/v6-safety">https://intesis.com/docs/manuals/v6-safety</a>

## **CONFIGURATION**

Use the **Configuration Tool** to configure the gateway.

See instructions to download and install the latest version at: <a href="https://intesis.com/docs/software/intesis-maps-installer">https://intesis.com/docs/software/intesis-maps-installer</a>

Use the Ethernet connection or the Console Port (mini USB type B connector included) for communication between the gateway and the configuration tool. See CONNECTIONS below and follow instructions of the user's manual for more details.

#### **INSTALLATION**

## Follow instructions next to properly install the gateway.

Disconnect from mains the power supply before connecting it to the Intesis gateway.

Disconnect the power of any bus or communication cable before connecting it to the Intesis device.

Mount the Intesis device on the wall or DIN rail following the instruction given below, respecting the safety instructions given above.

Connect an NEC Class 2 or Limited Power Source (LPS) and SELV rated power supply to the Intesis gateway, respect the polarity if DC power or Line and Neutral if AC power. Apply always a voltage within the range admitted by the Intesis gateway and of enough power (see technical characteristics).

Circuit-breakers must be used before the power supply. Rating 250V6A.

Connect the communication cables to the Intesis device, see details on the user's manual.

Power the Intesis gateway and the rest of the devices connected to it.

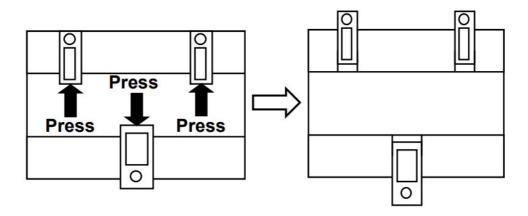
**NOTE:** The device cannot be installed in air-handling space.

#### **Wall Mount**

1. Separate the fixing clips in the bottom of the box, pushing them to the outside until hearing the "click" which indicates that now the clips are in position for wall mount, see in the figure below.

2. Use the holes of to fix the box in the wall using screws.

Use the template below for the wall wholes.

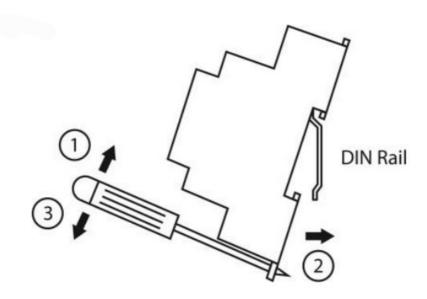


Clips in their original position(for DIN rail mount)

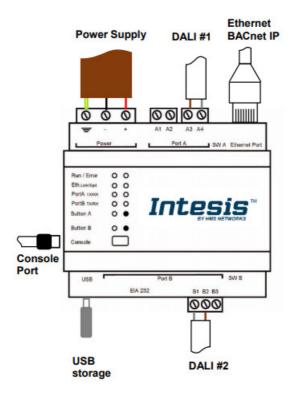
Clips in position for wall mount

## **DIN Rail Mount**

With the clips of the box in their original position, insert first the box in the upper edge of the DIN rail and later insert the box in the down part of the rail, using a small screwdriver and following the steps in the figure below.



## **CONNECTIONS**



#### **Power Supply**

Must use NEC Class 2 or Limited Power Source (LPS) and SELV-rated power supply. Respect polarity applied of terminals (+) and (-). Be sure the voltage applied is within the range admitted (check table below). The power supply can be connected to earth but only through the negative terminal, never through the positive terminal.

## Ethernet / BACnet IP (UDP) / Console (UDP & TCP)

Connect the cable coming from the IP network to the connector ETH of the gateway. Use an Ethernet CAT5 cable. If communicating through the LAN of the building, contact the network administrator and make sure traffic on the port used is allowed through all the LAN path (check the gateway user manual for more information). With factory settings, after powering up the gateway, DHCP will be enabled for 30 seconds. After that time, if no IP is provided by a DHCP server, the default IP 192.168.100.246 will be set.

#### PortA / DALI #1

Connect the DALI bus to connectors A4 (+), A3 (-) of the gateway's PortA. The Intesis gateway provides 16VDC (+/-2%) DALI voltage to the bus.

## PortB / DALI #2

Connect the DALI bus to connectors B2 (+), B1 (-) of the gateway's PortB. The Intesis gateway provides 16VDC (+/-2%) DALI voltage to the bus.

#### **Console Port**

Connect a mini-type B USB cable from your computer to the gateway to allow communication between the Configuration Software and the gateway. Remember that Ethernet connection is also allowed. Check the user manual for more information.

## **USB**

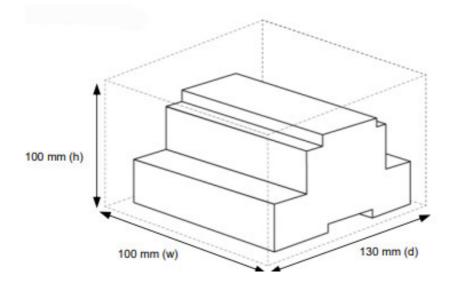
Connect a USB storage device (not an HDD) if required. Check the user manual for more information.

#### **ELECTRICAL & MECHANICAL FEATURES**

Enclosure	Plastic, type PC (UL 94 V-0) Net dimensions (dxwxh): 90x88x56 mm Recommended space for installation (dxwxh): 130x100x100mm Color: Light Grey. RAL 7035
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Mounting	Wall. DIN rail EN60715 TH35.
Terminal Wiring (for power supply an d low-voltage signals)	Per terminal: solid wires or stranded wires (twisted or with ferrule) 1 core: 0.5mm <sup>2</sup> 2.5mm <sup>2</sup> 2 cores: 0.5mm <sup>2</sup> 1.5mm <sup>2</sup> 3 cores: not permitted If cables are more than 3.05 meters long, a Class 2 cable is required.
Power	1 x Plug-in screw terminal block (3 poles) Positive, Negative, Earth 24VDC +/-10%
Ethernet	1 x Ethernet 10/100 Mbps RJ45 2 x Ethernet LED: port link and activity
Port A	1 x DALI port (Plug-in screw terminal block orange 2 poles) 1500VDC isolation from other ports DALI guaranteed power: 235mA Voltage rating: 16VDC 1 x Plug-in screw terminal block green (2 poles) Reserved for future use
Switch A (SWA)	1 x DIP-Switch for serial EIA485 configuration: Reserved for future use
PORT B	1 x Serial EIA232 (SUB-D9 male connector) Reserved for future use 1 x Serial EIA485 Plug-in screw terminal block (3 poles) DALI guaranteed power: 235mA Voltage rating: 16VDC 1500VDC isolation from other ports (except PORT B: EIA232)
Switch B (SWB)	1 x DIP-Switch for serial EIA485 configuration: Reserved for future use
Battery	Size: Coin 20mm x 3.2mm Capacity: 3V / 225mAh Type: Manganese Dioxide Lithium
Console Port	Mini Type-B USB 2.0 compliant 1500VDC isolation
USB port	Type-A USB 2.0 compliant Only for USB flash storage devices (USB pen drive) Power consumption limited to 150mA (HDD connection not allowed)

Push Button	Button A: Check the user manual Button B: Check the user manual
Operation Temperature	0°C to +50°C
Operational Humidity	5 to 95%, no condensation
Protection	IP20 (IEC60529)
LED Indicators	10 x Onboard LED indicators 2 x Run (Power)/Error 2 x Ethernet Link/Speed 2 x Port A TX/RX 2 x Port B TX/RX 1 x Button A indicator 1 x Button B indicator



This marking on the product, accessories, packaging or literature (manual) indicates that the product contains electronic parts and they must be properly disposed of by following the instructions at <a href="https://intesis.com/weee-regulation">https://intesis.com/weee-regulation</a>



## **Documents / Resources**



<u>Intesis DALI to BACnet gateway</u> [pdf] Installation Guide DALI to BACnet gateway, NBACDAL1280200

## References

- "#" Waste Electrical and Electronic Equipment | Intesis
- "#s intesis.com/docs/manuals/v6-safety
- \*\*\*\*\* Waste Electrical and Electronic Equipment | Intesis
- "# Intesis | Gateway solutions for Building Automation

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